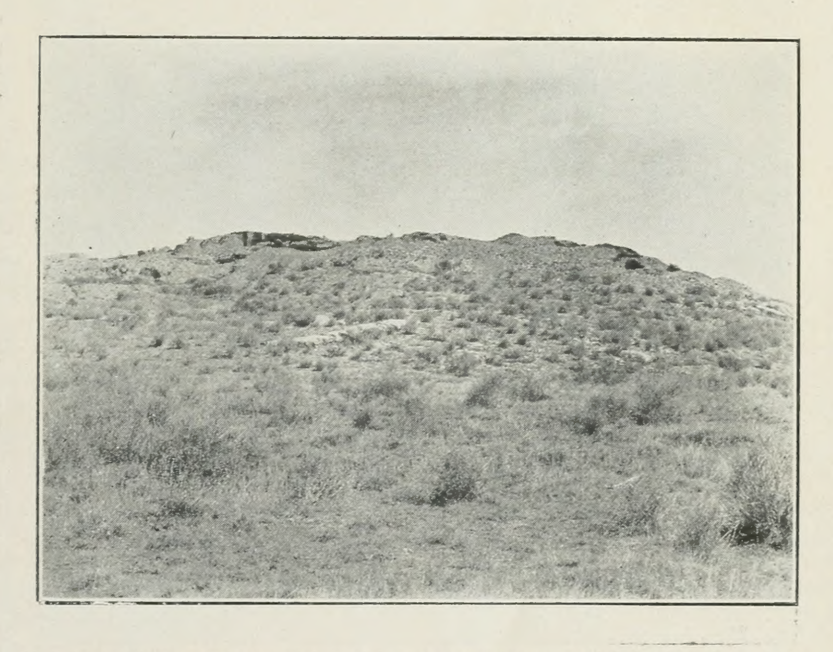
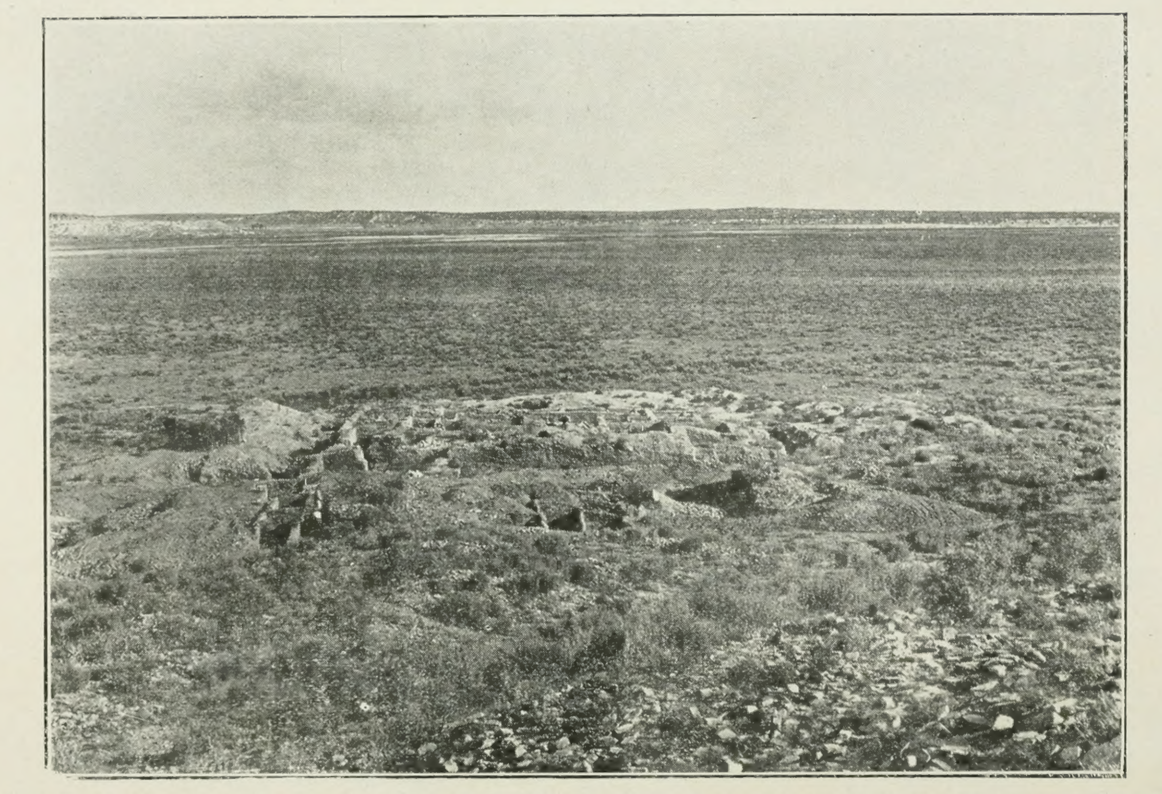
# El Palacio

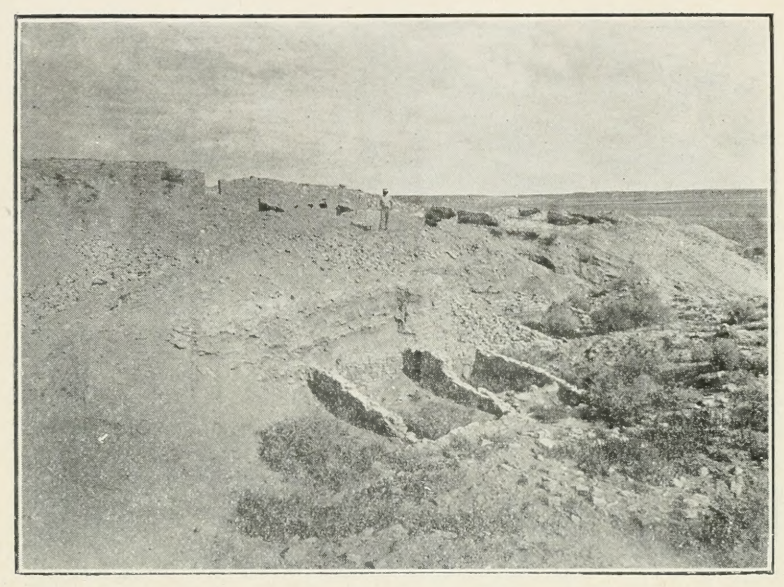
Vol. XII. JANUARY 1, 1922. No. 1.



THE RUINS AT HAWIKUH LOOKING SOUTHWESTWARD.



LOOKING ACROSS THE RUINS OF THE CHURCH AND MONASTERY FROM THE HAWIKUH HILL



Some of the Oldest Houses of Hawikuh (foreground), covered with the Refuse of Later Occupancy to a depth of 16 feet.

# RECENT EXCAVATIONS AT HAWIKUH

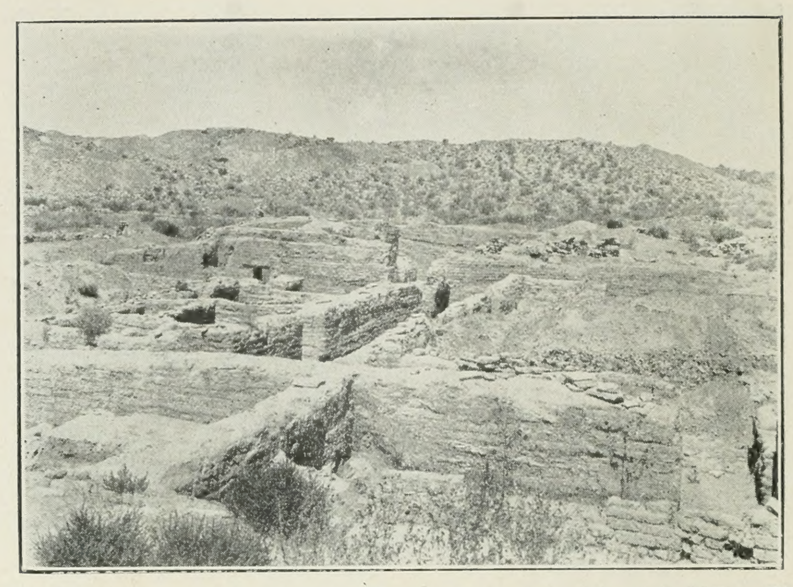
By F. W. Hodge.

FOR five seasons the Hendricks-Hodge Expedition of the American Indian, Heye Foundation, in New York City, has been engaged in excavating the ruins of the Zuni pueblo of Hawikuh in western central New Mexico, the fifth season having recently been brought to a close, with interesting results.

It is hardly necessary to inform readers of "El Palacio" that the first foreigners to see Hawikuh were the Barbary negro Estevanico, who was killed there in 1539, and the Franciscan Fray Marcos de Niza, whose guide the negro was; nor that Hawikuh in the following year was the scene of the attack on its inhabitants by Coronado with his advance guard, who there awaited the arrival of the main force, meanwhile reporting to the Viceroy Mendoza the progress of the expedition and the character of the new found province and its people, and discrediting the statements of Fray Marcos in regard to the now famed "Seven Cities of Cibola," of which Hawihuh was the most important.

Founded in pro-Spanish times, Hawikuh was occupied until 1670, when the pueblo was raided by the Apache and thenceforth virtually abandoned, although there is evidence that part of the town was temporarily occupied after that time. It was visited by several noted Spanish explorers after Coronado's time. and in 1629 the mission of La Concepcion was established there, a massive church and monastery of adobe masonry being erected.

During the seasons of 1920 and 1921, attention was devoted almost exclusively

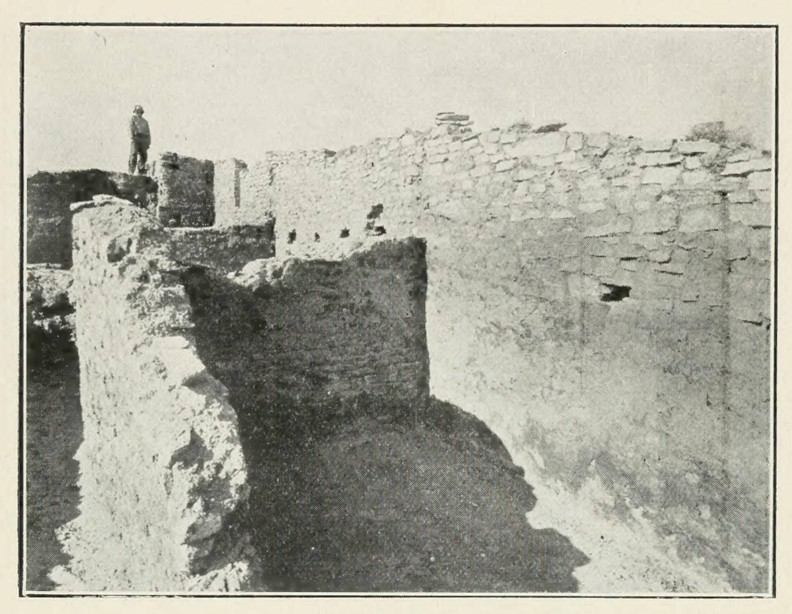


The Monastery and Church at the Eastern Base of the Hawikuh Hill. The Church is the taller structure toward the background.

to the excavation of the houses of Hawikuh, with special reference to the study of their structural features. Altogether 286 rooms have been uncovered to the close of the last season's work, the term "room" signifying any rectangular enclosure that had been used as a dwelling or for storage, regardless of depth, for in one instance was found a tier of four rooms commencing at a depth of 19 feet beneath the surface, and many others almost as deep. Probably no house of Hawikuh during its final occupancy, however, was of more than two stories, the lowest floors having been deliberately filled with debris and earth, and new dwellings built over them, sometimes on account of the insecurity of the walls or the decay of the floor beams, more often for the purpose of increasing the height of the knoll on which Hawikuh was originally built, evidently to afford better means of defense.

Owing to the fact that juniper and pinyon and especially the former, were the only trees readily available for roof and floor beams, the houses of Hawikuh were necessarily narrow, their average width being 7½ feet, while their length averaged about 11½ feet. These beams, usually 5 to 6 inches in thickness, were always laid across the lesser dimension of the room, their ends resting on or passing through the walls; but sometimes the ends were sharpened and driven into crevices of the masonry, giving meager support indeed, while in other instances they had no visible means of support, as the upright posts which held them had either been taken out before the filling, or had completely decayed after the room was filled in. On these main beams, which in the smaller rooms usually numbered three or four, sometimes fewer, were placed the cross beams a foot or less apart; and over these a layer of coarse grass and the usual earth or adobe mud to form the flooring.

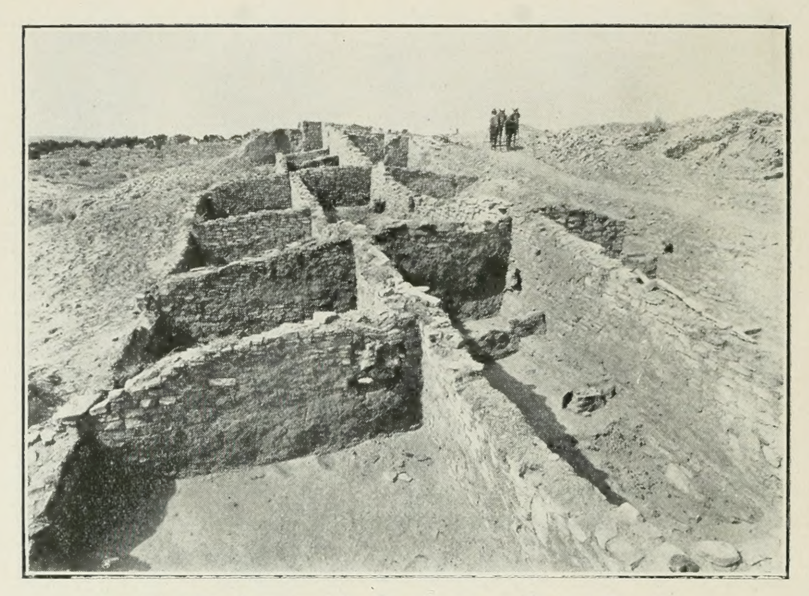
The masonry of Hawikuh is crude, on the whole, relatively few walls remaining



A Recent Section of Hawikuh Showing Well Preserved Walls, although the Houses here had been Destroyed by Fire and Partly Rebuilt.

perpendicular; indeed in some cases the walls leaned so much, even while the houses were occupied, that one wonders how they could have remained standing at all. Although laminated sandstone was readily and abundantly available in the vicinity, and easily shaped, little attention was given to the masonry aside from laying one stone upon another in a more or less haphazard fashion, for even in the best walls no care was taken to overlap the joints, in many cases half a dozen or more occurring one over the other. Almost invariably the corners were butted one against another, as if the four walls of a house were not built together; but in a few instances there was more or less bonding of the corners, sometimes deliberately, at other times owing to reconstruction. The width of the walls was almost invariably eleven inches.

The stones of the walls were laid in adobe mortar, in the more ancient walls (in which the stones were usually larger and less regular, but better laid) an abundance of mortar being used. The walls were well plastered in most of the houses, and as they became smoke blackened from the ill ventilated dwellings, a thin adobe wash was applied, until in some of the houses the walls were covered with layers of plaster from two to six inches in thickness. The maximum number of coatings determined was 63, while 30 or 40 were of common occurrence. In Zuni at the present time it is customary for the housewives to replaster the living rooms at least once a year, before the Shalako ceremony which usually is performed about December first; consequently we have in the number of plasterings a suggestion of the length of occupancy of the houses. The floors were usually of adobe plaster, but some of the rooms were wholly or partly floored with stone slabs, while others were merely of earth or compact sand.

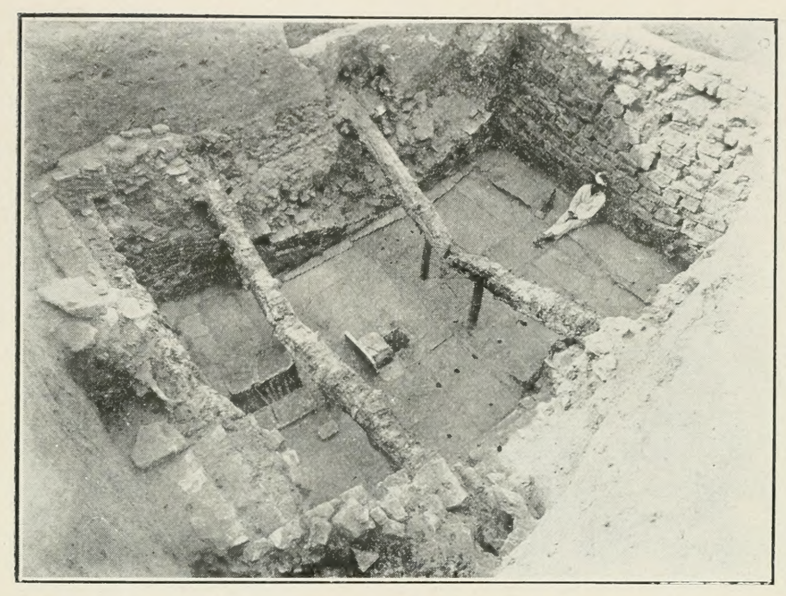


Looking North Along the Northwestern Tier of Dwellings.

Storage bins of stone and benches of masonry were of common occurrence in the domiciles, while every house was provided with at least one fireplace—a rectangular box like pit lined with thin stones set at floor level, usually about 17 inches long by half as wide, with depth averaging about four inches. Often the fireplaces were provided with a pair of pot stones, generally discarded manos, embedded in the floor and projecting above the fire place rim, to give support to the round bottomed cooking pots when on the fire. The corner fireplace, now so common to the pueblos, was introduced by the Spaniards, but the conservative Hawikuh people had not adopted this innovation, although under the immediate influence of the missionaries for 40 years.

No roofs remained, but we may reasonably suppose that their construction was the same as that of the floors, excepting that they afforded means of entrance and exit, the hatchway of the house being provided with a circular framework cut from a single stone, examples of which similar to those used in Zuni up to recent years, were found among the refuse that filled the rooms beneath. These hatchways also served for the exit of the smoke of the dwellings, the fireplaces, no doubt, being built in the floors immediately beneath them. Only one ladder—a heavy log with the stub ends of the limbs remaining—has been found during all the Hawikuh excavations.

Both the doorways and the windows of Hawikuh were small—the former merely large enough to afford passage from one room to another, the width averaging only about 18 inches, and the height perhaps 2½ feet. There were no doorways in the outer walls, the only access to the house being afforded by the hatchways. The sill was usually several inches above the floor. Although it would have been an easy matter to span the doorway with a heavy stone slab sufficiently strong to support the wall masonry above, the lintel generally consisted of a row of rather slender sticks over which a single thin slab was placed; con-

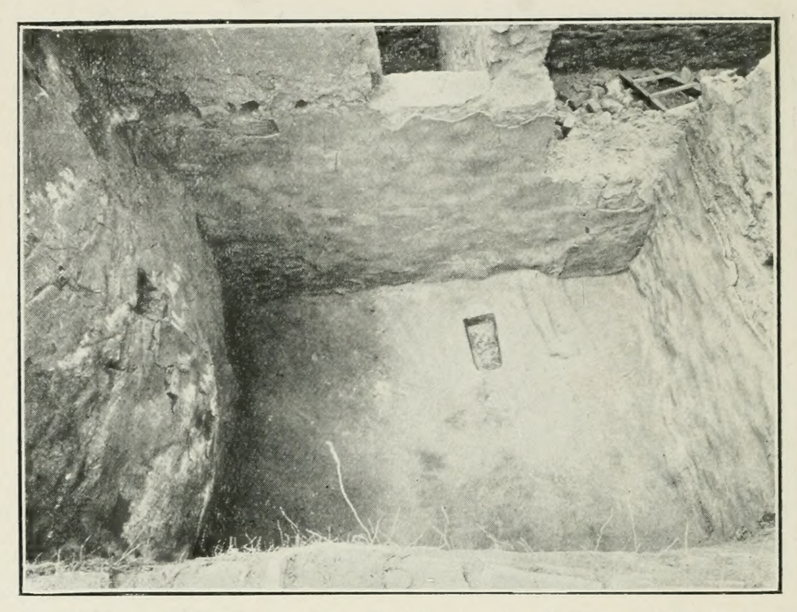


The Kiva with the Roof Removed, but with the Two Largest Beams still in place, supported in temporary posts, looking northwestward. Note the Fireplace near the center of the picture, and the Cross-sticks under the Platform at the left, showing how the Cover of the Air Ducts was here supported.

sequently, when the sticks decayed the slab collapsed from the pressure of the wall above, making necessary the sealing of the doorway with masonry in order to prevent the falling of the entire wall above the opening. Sometimes the doorway was neatly framed with slabs, but usually the jambs were formed of the wall masonry only.

The windows were always mere peepholes, usually not exceeding five or six inches in width and height. They were found in both the inner and the outer walls. Although many fragments of selenite were found, none of it was in place in the window openings, where doubtless it was once used instead of glass.

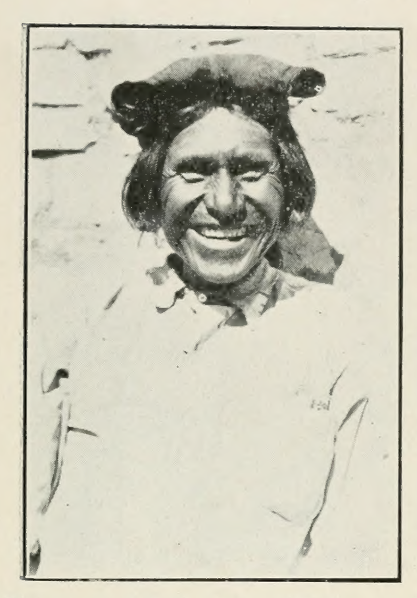
The artistry of Hawikuh is represented chiefly by the pottery, although various other artifacts in turquois mosaic, fabrics and stone, also manifest the extent to which the ancient habitants gave expression to their esthetic taste. Earthenware vessels cover such a wide range in form and embellishment that little can be said of them in this brief space, although they afford the chief means of approaching a study of the development of Hawikuh culture and to some extent of determining its relations to that of other sedentary tribes. We can merely say now that the earliest pottery of Hawikuh consists of (1) a red or red orange ware decorated with a neatly applied geometric pattern in green or black glaze, and, in the case of the bowls, usually with a simple geometric pattern in flat white on the outer surface, beneath the rim. Next in line of development was (2) the application of a white slip on the same kind of ware, the retention of the glazed geometric design for some time, followed by a freer embellishment in the form of zoomorphic and other figures, still in glaze, and by the



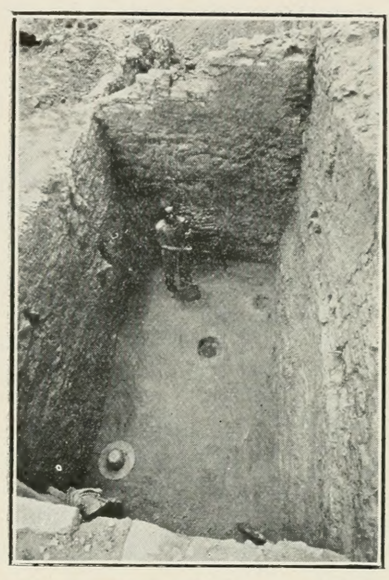
A Typical Dwelling with its Fireplace and well Plastered Walls.

introduction of flat red in association therewith; then (3) the gradual disappearance of the glazed ornamentation and the substitution of flat colors entirely, usually on an orange or yellowish ground, in the production of excellently drawn patterns of highly conventionalized designs, especially of birds, clouds, etc. This early polychrome ware is usually quite thin and symmetric. During the period represented by it and by the secondary glaze referred to (2), still in pre-Spanish times, cremation was practised, but during the period of the earliest glaze (1), inhumation was the custom, the body being buried with the head almost invariably toward the north or the south. Following the period last mentioned, the pottery became heavier, and with somewhat coarser and bolder decorations (4), as if the climax in Hawikuh earthenware had already been reached. But the pottery that now came into vogue, still entirely polychrome, was by no means of inferior grade in texture, form or embellishment, for often the decoration was applied with skill, and it possesses a wide range of highly conventionalized figures as well as life forms. It was during this later polychrome period that the Spaniards seem to have made their appearance, or at any rate the Franciscans settled among the Zuni, for the ware is found abundantly in graves in association with European objects, and is also accompanied with the last type of pottery (5), decorated with a clumsily applied glaze; often in green, and frequently associated with lustreless red, or decorated entirely in glaze, usually black, on a uniformly dark red slip. Both kinds are found in profusion with post-Spanish burials having the head directed eastwardly.

The most interesting remains uncovered at Hawikuh during the season of 1921 were those of a kiva, encountered during the digging of a large trench across the plaza of the former village. Like all Zuni kivas, this one was square,



Kahnta, one of the Zuni Workman of Hawikuh and one of the Dancers of the Santa Fe Fiesta, of 1921.

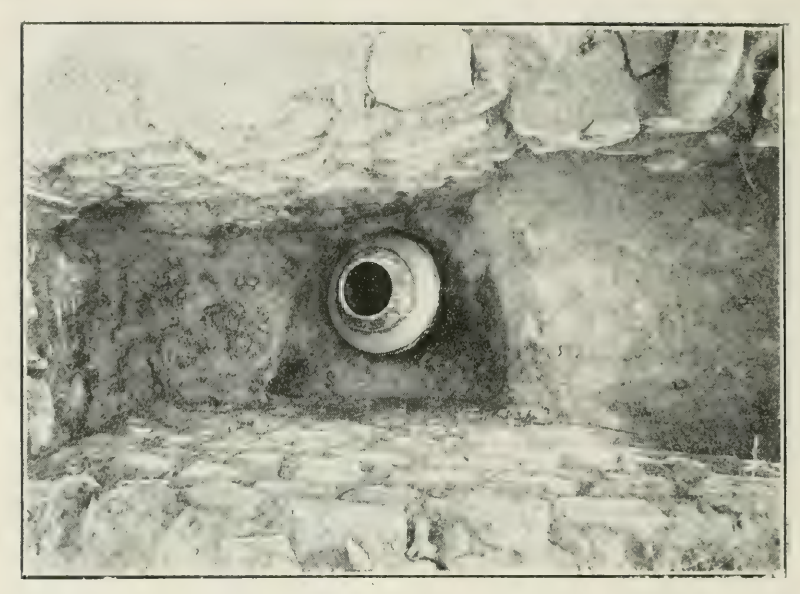


A House with its Characteristic Masonry. Note the Doorway sealed and partly plastered.

its maximum inside dimensions being 14 ft. 2 in. by 21 ft. 5 in., by 6 ft. 11 in. high from floor to beams. The walls, which were somewhat heavier than those of the houses, being about 15 to 20 inches in thickness, extended above the roof level in the form of a low coping that rose also above the surrounding plaza level, for during its occupancy the kiva was subterranean, as Coronado noted when he wrote to the Viceroy Mendoza, August 3, 1540, that they have "some very good rooms under ground and paved, which are made for winter, and are something like a sort of hot baths." The roof was found at a depth of 10½ feet under the present surface of the plaza, and consisted of six beams laid from wall to wall and slightly beyond, over which smaller crossbeams had been closely placed, and the whole covered with bark, in some places grass, and earth. The largest of the main beams was 17 inches in diameter, the smallest (against the south wall) only 4½ inches. An interesting feature was the entrance, which of course was in the form of a hatchway, only 19½ by 27 inches, the frame of which rose from a low platform surrounded by a narrow stone wall which rested on the beams, and measured 5 ft. 2 in. by 7 ft. 3 in.

The walls of the kiva had been plastered with mortar so sandy as to be scarcely distinguishable from the earth that formed most of the filling. The plastering was not applied directly to the building stones, but was laid on a mat of coarse grass laid against the masonry and held in place with pegs of varying sizes driven into the crevices of the wall. This insecure method of applying the plaster caused it to fall as soon as the supporting earth fill was removed, the grass, of course, having completely decayed. In two of the dwellings a similar method of applying the wall plaster was employed.

The floor of the kiva was neatly paved



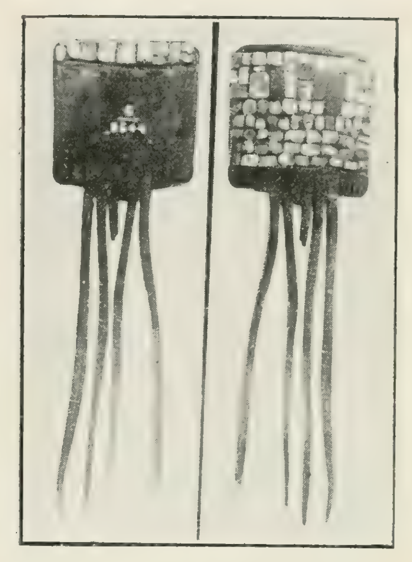
A Fine Jar found in a Crypt and containing two Etawe, or Palladia, consisting of Prayer Sticks Wrapped in a Fabric of Yucca Fibre.

with large stone slabs, in which a number of small round holes had been cut or drilled, as if to receive the upright posts of altars or the supporting posts of looms, while one hole, about the center of the floor, probably served as the shipapulima, as in at least some of the present Zuni kivas. Extending entirely along the southern side, about 5 feet wide and 18 inches high, was a platform or dais, also neatly paved with slabs. In front of this, in one of the facing slabs, was a neat semicircular opening, covered with an upright slab, which had served as the mouth of an air duct that passed horizontally through the platform and the south kiva wall, connecting with a vertical, chimney like shaft built outside the kiva and extending several feet above the roof. In front of the platform was the fireplace, considerably larger than the firepits in the dwellings, and of different construction, as shown in the illustration. Although applying to all the pueblos visited by the Coronado expedition, Castaneda's description of kiva fireplaces is not inappropriate to the one at Hawikuh. "They [the kivas] have a hearth made like the binnacle or compass box of a ship, in which they burn a handful of thyme [sagebrush] at a time to keep up the heat, and they can stay in there just as in a bath." The only part of the floor not paved was a small space between the fireplace and the platform, directly beneath the hatchway. In all probability the ladder had rested here, but as no trace of it remained it evidently had been removed when the kiva was abandoned.

That the kiva was deserted some time after the coming of the Spaniards and before the abandonment of the pueblo is quite evident, inasmuch as the bones, and particularly the skulls, of various domestic animals were found throughout the fill from surface to floor, a depth of about 16½ feet. Moreover, on the roof of the kiva were a fragment of china and a piece of iron and within the kiva itself a peach seed. Then, too, most of the



A Framed Doorway with its Broken Lintel and Sealed with a Thin Slab.



The Reverse and Obverse Sides of a Wooden Comb inlaid with Turquois and Jet.

potsherds found within the kiva were of the recent glaze type.

We must leave for another occasion a description of two adjoining circular kivas unearthed 652 feet westwardly from the northwest corner of Hawikuh. These kivas, uncovered in 1920 and 1921, bear no relation to Hawikuh except that a small room was built by the earliest Hawikuh people within each of them, and a few interments made adjacent thereto. Generally speaking, they are of the type of kivas found within the San Juan drainage, and were built and abandoned long before Hawikuh was settled.

As in other years, the Hawikuh excavations of 1921 were made possible by the generosity of Harmon W. Hendricks, Esq., a trustee of the Museum of the American Indian, Heye Foundation, who has manifested his keen interest in the activities of the Museum in so many ways.

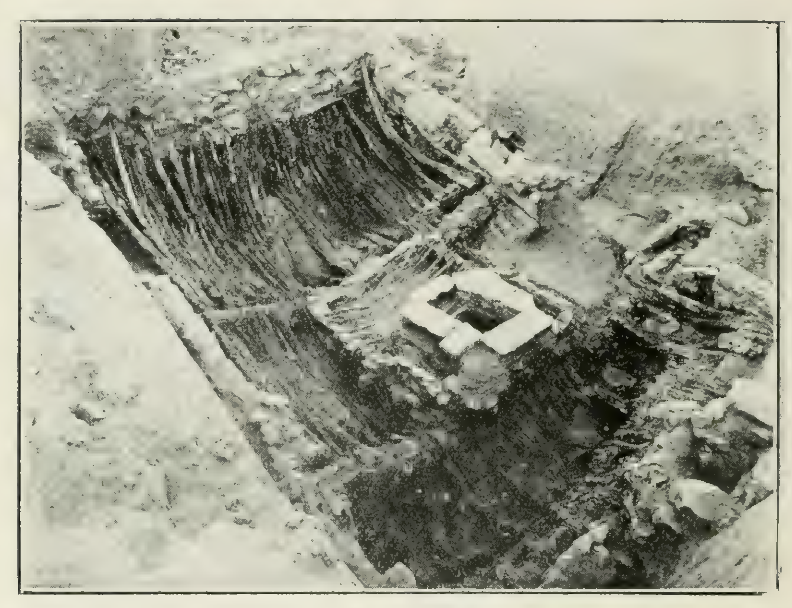
## IN THE FIELD

Archaeology in America.

Dear Atlantic,—

Upon my return to-day to the little khaki tent on a big New Mexican ranch which constitutes my temporary home, I had the exhilarating experience of reading Mr. Moorehead's article in your September issue. May I be allowed a comment or two?

I, too am an archaeologist, and one of the younger school that went 'West, South, or abroad.' Each one of us, when he reached the parting of the ways, chose that American culture which interested him most, as the subject for his life-work. The entire new world is roughly divided into large geographical areas, each of which was once the home of some distinct civilization. In nearly every case, these old civilizations differ



The Roof of the Kiva Showing Mode of Construction and the Hatchway. Looking northeastward.

EL PALACIO

VOL. XII, JANUARY 1, 1922. NO. 12.

PAUL A. F. WALTER, Editor

one from the other as widely as ancient Egypt from Babylon in its prime. Each archaeologist, in attacking the many and varied problems in his own area, soon becomes a specialist, and, as such, becomes incompetent to judge of the detailed problems of other areas. However, all of us have a sufficient knowledge of the general problems of American archaeology to appreciate those of another area. When all is said and done we are one in our desire to extend the history of the American Indian backward in the realm of time. Mr. Morehead has mentioned public interest in archaeology. I quite agree with him that this interest should start at home. If, however, the antiquities of one area of our country have received a modicum of attention in excess of another, the men working in that area are to be congratulated. Even at its best, the interest our public takes in the history and archaeology of its own country is discouragingly small. It is our great dream that some day the public as a whole will awaken to the great fund of romance and history that now lies hidden in the ruins, not only in one area, but in all parts of the country. The slogan "See America First" should be changed to "Know America First," in all that the change of the verb implies. A better knowledge of Indian history, also of the remnants of that race still living would certainly do more good than harm,

These few sentences are not to be construed as a criticism in any way. They are simply in the form of a footnote. I congratulate my friend, Mr. Moorehead,



A Terracotta Image found in the refuse of a Burned House and Recognized by the Zuni as that of a "House Priestess."



This House had been subjected to such intense heat when it was burned that some of the Pottery was practically liquefied.

and also the "Atlantic," upon this article, which gives promise of a better, saner interest on the part of the public in our work, because it is a serious article, put before the right kind of a public.

Sincerely yours,

Carl E. Guthe.

—November Atlantic Monthly.

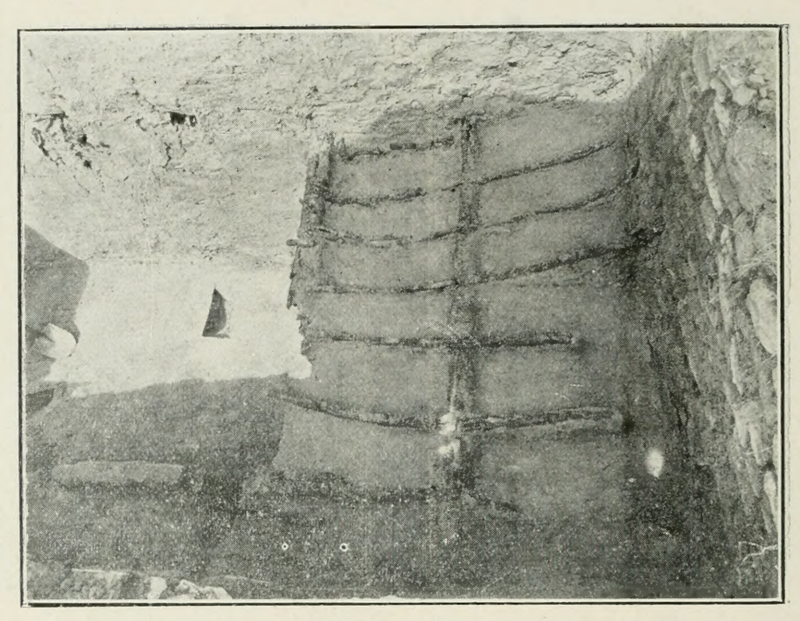
Fire Dance in India.

Resembling curiously the fire dance of the Navajos, a ceremony of that character was given for the Prince of Wales as part of the program for his entertainment in India. Bare-legged natives danced through the embers of a great bonfire built in the quadrangle of the fort at Bikaner. As they danced they sang wildly and snatched up portions of the fiery mass which they placed in their mouths. Subsequently they pirouetted before the Prince, inviting inspection of their legs and feet, which were apparently moist and cool. Several members of the Prince's staff burned their fingers in attempting to pick up some of the embers.

## PAINTING AND SCULPTURE

Exhibit by Cassidy.

Gerald Cassidy has just sent to Los Angeles some thirty landscapes and portraits which constitute his newest work. They will be hung in the Kahnst Galleries and are bound to attract much attention. Mr. Cassidy in his landscapes is the first to present adequate views of the Red River Country in northeastern Taos County. He depicts the magnificent scenery at autumn time when aspens are a golden yellow and the oak is turning a vivid crimson. There is joy in Mr. Cassidy's landscapes and the color harmonies sing with vibrant tones. He is especially happy in his skies as well as in his distances. The portraits of Indians are done with sympathetic brush. It is evident from



A Lower Story and the Flooring of the Room Above.

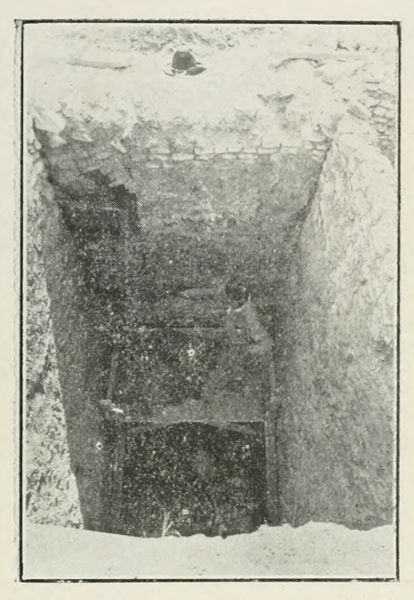
this fine exhibit that Mr. Cassidy is a poet and an optimist, whose mission it is to give pleasure and joy. Los Angeles is making a very strong bid to become an art center, and more and more work of artists of the Santa Fe and Taos group is being sent there for exhibition. The Southwest Museum in that city has just held its first big art exhibition in which the Museum at Santa Fe took very much interest, for they are sister institutions. The Southwest Museum was founded by Dr. Charles F. Lummis, who is also a member of the Managing Committee of the School of American Research in Santa Fe.

The following prizes were awarded at the Southwest Museum exhibit: Edgar Alwin Payne's painting entitled "Topmost Crags" was given the first prize of $250. The second prize of $100 went to Hansen Puthuff for his picture entitled "Exaltation." First prize for figure, $50 to Maynard Dixon for his painting entitled "The Navajoes." The second prize for figure to F. Carl Smith for his painting "Angelus." First prize for water color to Rowena Meeks Abdy's "From my Balcony." A special prize of $100 was given by popular vote to William Lee Judson for a picture entitled "Morning," while honorable mention was given to John Frost for "Live Oaks" and to R. A. White for "Sunshine and Shadow."

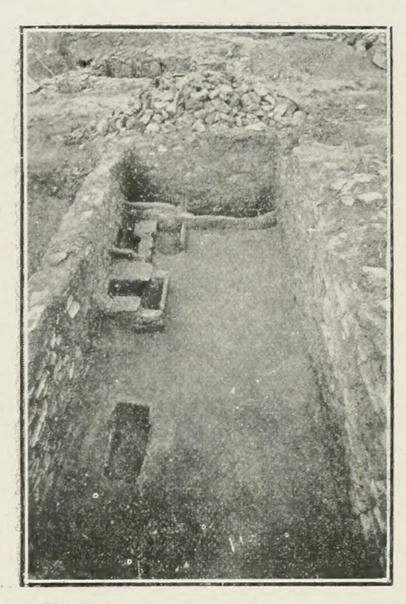
New Mexico Art in New York.

The New York Times Review in a further criticism of the annual exhibit of the New York Academy makes the following additional note on the paintings from Santa Fe and Taos:

"Nowadays there is no Academy without its Indian. Here in the South Gallery are Walter Ufer's 'By the Window,' with its curious association of an Indian in a green shawl and a prettily appointed tea tray, and 'The Corn ceremony' by Irving Couse, besides the In-



A Deep House extending 19 Feet beneath the Surface and having 4 Stories.



An unusually long House, with its Fireplace and Bins.

dians in Mr. Aitken's sculpture. In the Centre Gallery is Ernest Blumenschein's 'Taos Plasterer,' with his arrestingly bright eyes, and in the Vanderbilt Gallery are Mr. Blumenschein's prize-winning picture and Mr. Ufer's 'Present and Past: Confusion.' The aboriginal brightens as he takes his flight. There are western scenes in which the Indian is missing. 'The Cattle Buyer,' by Herbert Dunton, in the Centre Gallery, would be described—if pictures had 'blurbs'—as 'getting under the skin of the Great West' and showing 'red blood of the plains and prairies.' No one for a moment could doubt that Mr. Dunton had known this particular shrewd and experienced buyer. 'The Fall Round-up,' by Carl Rungius, is the picture that missed the Altman Prize because the artist was born in Germany. The weathered horsemen against a monotonous prairie landscape are of a tremendous section of the American pie. A. L. Groll is still for New Mexico and William Ritschel for California."

Artistic Art Catalogue.

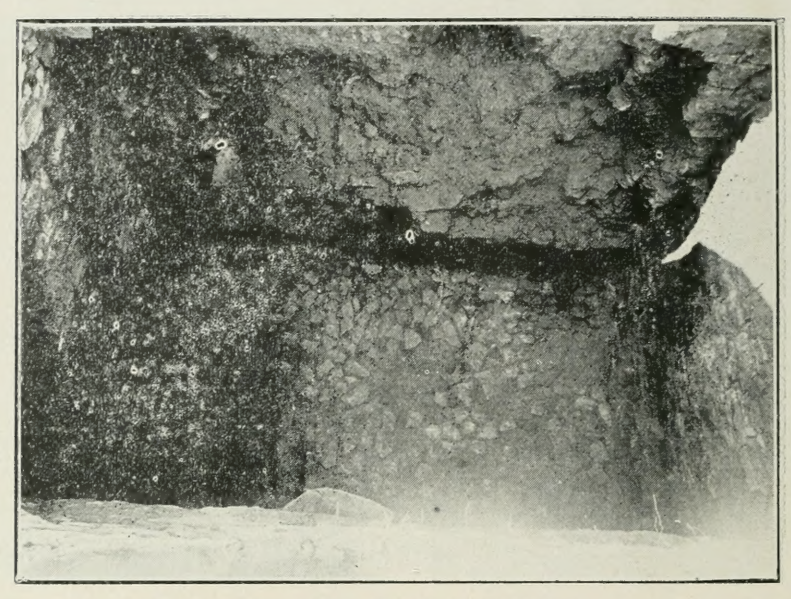
The Museum library is in receipt of a beautifully printed and illustrated catalogue of paintings and bronzes of American and European art on view during the month of December in the Kraushar Art Galleries, New York City. Among the paintings reproduced is "Six O'clock Evening" by John Sloan of the Santa Fe Art Colony. Another painting on exhibit by Mr. Sloan is the "Wake of the Ferry." Ignacio Zuloaga is represented by "Merceditas" and "Candido."

## ACKNOWLEDGMENTS

Dues Paid

Santa Fe Society

Joseph C. Kircher; W. A. Clark, Jr.;



A Room Paved with Small Stones.

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